

Resilience Week 2015

Hosted in Philadelphia, PA • August 18-20, 2015

Transforming the Resilience of Cognitive, Cyber-physical Systems

Statement of Themes: Symposia dedicated to promising research in resilient systems that will protect critical cyber-physical infrastructures from unexpected and malicious threats--securing our way of life.

Special/Invite Announcement & Call for Papers

Session S/I-03:

"When Resilience Goes Bad: Fratricide, anaphylaxis and other negative emergent behaviors"

Session Abstract:

A number of technologies have been proposed to improve the resilience of cyber systems including such techniques include diversity, deception, agility as well as others. In each case, the ultimate goal is to shorten the timespan a malicious entity has to operate and to significantly increase the uncertainty of success and costs. However, the costs, impacts, and interactions on the defensive side are also unknown. Therefore, as we implement these approaches into real systems in dynamic, contested environments, how do we make sure to bound the possibilities of how they will react? While on the one hand, such approaches may truly confer a high degree of resilience, it is also possible that some of these behaviors is actually worse than the problem, as illustrated by a couple of simple examples (here introduce fratricide and anaphylaxis). This session will focus on methods for recognizing and mitigating possible negative behaviors by complex resilient systems.

Topics:

Potential resilient technology negative behaviors, modeling system behaviors, metrics indicating negative behaviors, C2 to prevent/address negative behaviors, auto-detection of negative behaviors by the resilient technologies involved.

Chairs:

- Dr. Nick Multari, nick.multari@pnnl.gov
- Dr. Chris Oehmen, chris.oeihen@pnnl.gov

Authors' Schedule:

- Paper submission deadline: **April 1, 2013**
- Notification of acceptance: **June 3, 2013**

Contact Information

Resilience Week

[Craig Rieger](#) Chair,
Idaho National Laboratory
[Jodi Grqich](#) Organizer,
Idaho National Laboratory

Controls Symposium

[Frank Ferrese](#) Chair,
Naval Sea Systems Command

Cyber Symposium

[Marco Carvalho](#), Chair,
Florida Institute of Technology

Cognitive Symposium

[Roger Lew](#) Chair,
University of Idaho

Communications Symposium

[Jie Wu](#), Chair,
Temple University

Submission of Papers:

Papers must be submitted electronically through the electronic submission system. For further details please consult the conference web pages.

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